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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,643	03/20/2002	Christine Millard	P 0291078	7429

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PILLSBURY WINTHROP, LLP
P.O. BOX 10500
MCLEAN, VA 22102

EXAMINER

POWERS, FIONA

ART UNIT	PAPER NUMBER
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1626

DATE MAILED: 07/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/088,643	Applicant(s) MILLARD ET AL.	
	Examiner Fiona T. Powers	Art Unit 1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,8,10, 11 and 13-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4,8,10,11,13-23 and 25-27 is/are allowed.
- 6) ☒ Claim(s) 1,3,5 and 24 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

Receipt is acknowledged of the amendment filed June 6, 2003, which has been entered in the file.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 24 is indefinite because it does not recite the process steps whereby the substrate is printed. It merely recites that the substrate is printed with a composition according to claim 4 using an ink-jet printer.

Claims 1, 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over British Patent 1359171.

Determination of the scope and content of the prior art (MPEP §2141.01)

British Patent 1359171 discloses pyridoneazo dyestuffs which contain an acid substituent which are useful for the dyeing of nitrogen-containing fibers such as wool and

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polyhydroxylic materials such as cellulose containing fibers. The compound disclosed by the reference is of instant formula (1) wherein R^1 is ethyl, R^2 is methyl, Z is hydrogen, one of X and Y is SO_3M and one of m and n is 1 and the other is 0. Also disclosed is an aqueous solution of the dyestuff. Note Example 5 on page 12.

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The claimed compounds differ from the compounds disclosed in the reference in that they are homologs or close structural analogs of the compounds disclosed by the references. For example, compounds similar to Example 5 of GB 1359171 but where the group which corresponds to R^1 is methyl or propyl instead of ethyl or where the group which corresponds to R^2 of the present invention is ethyl instead of methyl would be rendered obvious. The claimed compositions of claim 5 which contain these homologous compounds would also have been rendered obvious.

Finding of prima facie obviousness---rational and motivation (MPEP §2142-2413)

The interchangeability of the substituents mentioned above is taught by the references. Note formula (I) and the definition of R and R' on page 1 and page 2, lines 19 to 22 of GB 1359171.

One of ordinary skill in the art would have been motivated to make the claimed compounds and compositions with the

expectation that additional compounds and compositions useful for dyeing nitrogen-containing fibers or polyhydroxylic materials would be obtained. The claimed compounds and compositions would have been rendered obvious by the teachings of the reference in the absence of any unobvious or unexpected property.

Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Segal et al. (US 4659807).

Determination of the scope and content of the prior art (MPEP §2141.01)

Segal discloses water-soluble pyridone monoazo compounds which are suitable as fiber reactive dyestuffs for hydroxy- and/or carboxamido-containing materials such as cotton. The compound disclosed by the reference is of instant formula (1) wherein R¹ is carboxyethyl, R² is methyl, Z is CONH₂ and one of X and Y is β -sulfatoethylsulfonyl, and one of m and n is 1 and the other is 0. Also disclosed is an aqueous solution of the dyestuff. Note Examples 3 and 20.

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The claimed compounds differ from the compounds disclosed in the reference in that they are homologs or close structural analogs of the compounds disclosed by the references. For example, compounds similar to Examples 3 and 20 of Segal but where H replaces CONH₂ or vice versa at the 3-position of the

pyridone radical or where the group bonded to the pyridone nitrogen is carboxymethyl or sulfomethyl instead of carboxyethyl or sulfoethyl would have been rendered obvious. The claimed compositions of claim 5 which contain these homologous compounds would also have been rendered obvious.

Finding of prima facie obviousness---rational and motivation (MPEP §2142-2413)

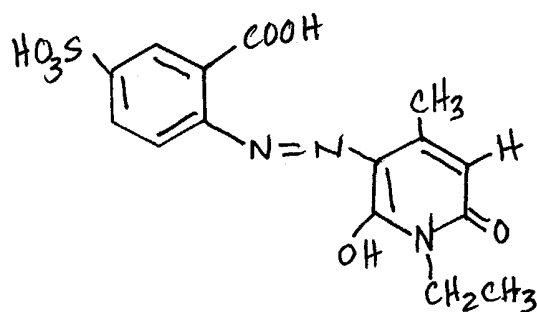
The interchangeability of the substituents mentioned above is taught by the references. Note formula (1) and the definitions of R and B in columns 1 to 2 of Segal. One of ordinary skill in the art would have been motivated to make the claimed compounds and compositions with the expectation that additional compounds and compositions useful for dyeing hydroxy- and/or carboxamido-containing materials would be obtained. The claimed compounds and compositions would have been rendered obvious by the teachings of the reference in the absence of any unobvious or unexpected property.

Applicant's arguments filed June 6, 2003 have been fully considered but they are not persuasive. Applicants argue that the references disclose only aqueous (non-organic) solutions of the water-soluble dyestuffs and it would not have been obvious to modify these disclosures to provide organic based solvent compositions in view of the essential water-soluble property of

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the disclosed compounds. However, the composition of claim 5 includes only aqueous solutions of the compound according to claim 1. The references disclose aqueous solution of compounds which are excluded by the provisos in claim 1. However, the claimed aqueous compositions which contain compounds which are homologs of those disclosed by the references would have been rendered obvious for the reasons given supra.

Applicants also argue that the compound of Example 5 of GB 171 would not suggest the compounds of instant claims 1 and 3 because it does not include a carboxy group ortho to the azo linkage. However, the compound of Example 5 does include a carboxy group ortho to the azo linkage. Note that the diazo component is 2-amino-5-sulphobenzoic acid. The dye produced has the following structure



Although this compound is excluded by proviso ii) in claim 1 and the proviso in claim 3, it would render obvious the homologous compounds where R¹ is methyl or propyl or where R² is ethyl for the reasons given supra.

In addition, applicants argue that the compounds of US 807 (specifically Examples 3 and 20) fail to suggest compounds according to the present invention because the substituent bonded to the pyridone nitrogen is an ethyl group which is excluded by the proviso ii) of claims 1 and 3. The compound of Segal is not excluded by proviso ii) in claim 1 because the substituent which corresponds to X is a β -sulfatoethyl group and proviso ii) excludes compounds where X is a sulpho group. However, Example 3 is excluded because it corresponds to the second compound from the end of claim 1. Example 20 is excluded by proviso iii) in claim 1. However, the claimed compounds wherein the pyridone nitrogen is substituted by carboxyethyl and Z is H or where the pyridone nitrogen is substituted by carboxymethyl or sulfomethyl would have been rendered obvious for the reasons given supra.

Claims 4, 8, 10, 11, 13 to 23 and 25 to 27 are allowed.

Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fiona T.

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Powers whose telephone number is 703-308-4535. The examiner can normally be reached on Monday - Friday 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane can be reached on 703-308-4537. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-4556 for regular communications and 703-308-4556 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

Fiona T. Powers
Fiona T. Powers
Primary Examiner
Art Unit 1626

ftp
July 30, 2003